CLAIMS

1.   Generation and application process on a support of a digital spatial marking of X x Y points according to a resolution of d1x by d1y points per surface unit and intended to be read by a reading device with a resolution of d2x by d2y points per surface unit, taking into account that the
5   ratio d1x/d2x and/or d1y/d2y is larger than 1, this process comprising the following steps:
-      sub-sampling of the digital spatial marking in X according to a factor $nx = d1x/d2x$ and in Y according to a factor $ny = d1y/d2y$,
-      erosion of the points intended to be applied so as to leave one point every nx points in X and one point every nx points in Y,
10   -   application of the spatial marking on the support.

2.   Generation and application process of a spatial marking according to claim 1, **characterized in that** the resolution of the reading device is identical in X and in Y that is to say $d2x = d2y$.
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3.   Generation and of application process of a spatial marking according to claim 1 or 2, **characterized in that** the resolution of the initial spatial marking is identical in X and in Y that is to say $d1x = d1y$.

20   4.   Generation and application process of a spatial marking according to claim 1 or 2, **characterized in that** the ratio of resolution in X (nx) and the ratio of resolution in Y (ny) is comprised between 2 and 5, 2 and 5 inclusive.

5.   Process of recognition of a spatial marking applied according to the process of the claims
25   1 to 4, **characterized in that** it includes the following steps:
-      digital acquisition of an image of the support,
-      filtering on the image obtained to eliminate the parts not comprising the spatial marking,
-      use of autocorrelation properties to compensate every affine transformation introduced by the acquisition,
30   -   compensation in translation of the spatial marking using an intercorrelation between the obtained spatial marking and the group of possible positions of the spatial marking defined by a key,
-      decoding of the digital information by statistical correlation for each bit of information.

35   6.   Detection process of a spatial marking according to claim 5 **characterized in that** the filtering stage is based on a compensation of a uniform initial colour.

7.   Detection process of a spatial marking according to claim 5 **characterized in that** the filtering stage is based on a prediction of the image of the initial support by a soundproofing filter.

8.   Detection process of a spatial marking according to claims 5 to 7, **characterized in that** the digital acquisition of the image is carried out by a scanner.

9.   Process of detection of a spatial marking according to claims 5 to 7, **characterized in that** the digital acquisition of the image is carried out using a portable detector.

10.   Process of detection of a spatial marking according to claims 5 to 7, **characterized in that** the acquisition and processing of the spatial marking are carried out in two geographically remote locations.

11.   Application process of the spatial marking according to claims 1 to 4, **characterized in that** the application process of the spatial marking on the support is constituted by a printing process.

12.   Application process of the spatial marking according to claims 1 to 4, **characterized in that** the application process of the spatial marking on the support is constituted by an engraving process.